

Interagency Functional Transformation – Current and Emerging Departmental Relationships

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"It is not the strongest of the species that survives, nor the most intelligent; it is the one most adaptable to change." Darwin

Introduction and Overview

Nations and ideas are like species. As Charles Darwin pointed out in his 1858 work the *Origin of Species*, the species that are most adaptable flourish and survive. Organizations too must undergo change to flourish and survive.

Transformation is not a new phenomenon within the Department of Defense (DOD). Though transformation has been an evolutionary process, it has been accelerated by recent changes in the national security environment and significant technological advances. Transformation is clearly a priority of U.S. national leadership. A review of the history of that evolution and assessment of the current interagency relationships can suggest options to complete the process. Functional mergers have taken place within satellite command and control, overlapping responsibilities such as those encountered in the intelligence sphere have arisen, and potentially competing responsibilities are at present found within the DOD and law enforcement spheres. Transformation within DOD will not be complete without a corresponding functional area transformation throughout key government departments and agencies. A transformation case can be proposed that would conserve resources, maximize efficiency, and preserve operational effectiveness.

Nested throughout the following discussion is the key concept of transformation. In his article "Understanding Transformation," General Richard Myers, USAF, Chairman of the Joint Chiefs of Staff (CJCS), offered insights into the concept of transformation

from a joint perspective. He stated, “Transformation is about creating joint competencies from the separate service capabilities into a seamless joint framework to accomplish the joint force commanders objectives.... [T]ransformation is about demonstrating flexibility, dexterity, and adaptability how the joint force can master unexpected challenges” (1). What is equally important is to understand what transformation is NOT. As General Myers described, “It’s not about twentieth-century forces being renamed with twenty-first century titles.... [T]his singular mentality reduces transformation efforts into rear-guard actions to defend its rice bowls” (2).

Interagency functional transformation takes on the same characteristics as what General Myers describes is needed for the DOD. The latest Quadrennial Defense Review Report sets a small but potentially loud call for this type of transformation in DOD “Business Practices.” It captures this essence: “Only those functions that must be performed by the DOD should be kept by the DOD” (3). That thinking directly supports the development of new relationships between government agencies that share similar tasks and relationships. There are examples where two or more government agencies seem to accomplish the same missions or nearly the same mission, and would be ripe for that type of transformation, but accomplishing such transformations is not a quick or painless process. Many vested interests within and outside the government work to keep and expand on the status quo.

Historical Perspectives

Current Perspectives

In 1993 then-Vice President Al Gore issued his report covering the National Performance Review to then-President Clinton. It brought forth many ideas to streamline government and encouraged agencies to find a more effective means of conducting the government's business. A total of 384 recommendations were made, of which 119 were highlighted. One of the highlighted areas was converging the nation's weather satellite programs into a single civilian operational environmental polar satellite program (4).

In 1993, the nation maintained two polar-orbiting meteorological satellite systems: (A) the National Oceanic and Atmospheric Administration (NOAA) Polar-orbiting Operational Environmental Satellite (POES), for civil forecasting and research purposes, and (B) the DOD Defense Meteorological Satellite Program (DMSP) for national security purposes.

In addition to those programs, the National Aeronautic and Space Administration (NASA) initiated a climate research program called Mission to Planet Earth (MTPE). A key portion of that effort is the Earth Observing System (EOS), a series of six different satellites measuring various parameters critical to understanding global climate change. One of those satellites is called the EOS-PM (PM indicating that the satellite passes over the equator in the afternoon). The climate monitoring instruments on EOS-PM are more modern versions of the meteorological instruments currently flying on the NOAA weather satellites. In essence, the nation will have three different satellite systems with very similar capabilities (5).

Merging the two programs was not a new idea. Since 1972, the POES and DMSP programs have made eight attempts to converge on a limited basis (6). Both programs have similar spacecraft, use a common launch vehicle, share products derived from the data, provide complementary environmental data to the nation, and work closely together on research and development efforts. In all, the programs achieved substantial commonality, but national security concerns precluded full convergence until now. DOD offered to manage the converged system, but a single program run by DOD was considered unacceptable given the ongoing international concern over the militarization of space (7).

With the end of the Cold War, both the POES and DMSP programs were separately looking to modernize their spacecraft. Both programs submitted proposals to buy upgraded satellites: for POES a block change designated by satellites O, P, Q and R, while for DMSP the block change was designated Block 6, consisting of six DMSP satellites. The NPR decided the time was right to consolidate both programs and transform them under one government agency.

Despite all the “good ideas” being generated by the NPR, members of the House and Senate were busy evaluating proposals under the NPR to see what changes in legislation were required. Congressman George Brown of California, then-Chairman of the House Science, Space and Technology Committee, had stated that a converged system seemed more achievable than in the past. He therefore directed NOAA to work with DOD and NASA to “jointly study and assess the possible benefits and mechanisms for merging all or parts of the three programs” (8). Senator James Exon of Nebraska was more direct in his letters to DOD and Commerce: “The nation cannot afford to maintain and modernize two satellite weather constellations” (9).

Legislation was drafted under HR 3400 Government Reinvention Act to work out the details on transforming resources from the POES and DMSP programs into a new organization. Although HR 3400 was never signed into law, key provisions were later enacted under the various appropriations and authorizations bills covering the DOD, DOC, and NASA. NASA's efforts under its EOS programs were also evaluated for convergence with POES and DMSP, but were never fully implemented. From a Congressional viewpoint, it was decided to ensure only that there was no duplication of efforts between the DOD, DOC, and NASA.

The real key to transformation and development of an interagency process occurred on 5 May 1994 with the following Presidential Decision Directive/National Science and Technology Council-2:

The United States operates civil and military polar-orbiting environmental satellite systems which collect, process, and distribute remotely-sensed meteorological, oceanographic, and space environmental data. DOC is responsible for the Polar-orbiting Operational Environmental Satellite (POES) program and the DOD is responsible for the Defense Meteorological Satellite Program (DMSP). The National Aeronautics and Space Administration (NASA), through its Earth Observing System (EOS) development efforts, will provide new remote sensing and spacecraft technologies that could potentially improve the capabilities of the operational system. While the civil and military missions of POES and DMSP remain unchanged, establishing a single, converged, operational system can reduce duplication of efforts in meeting common requirements while satisfying the unique requirements of the civil and national security communities. A converged system can accommodate international cooperation, including the open distribution of environmental data.

The PDD also outlined the following objectives and principles: The United States will seek to reduce the cost of acquiring and operating polar-orbiting environmental satellite systems, while continuing to satisfy U.S. operational requirements for data from these systems. The DOC and the DOD will integrate their programs into a single, converged,

national polar-orbiting operational environmental satellite system. Additional savings may be achieved by incorporating appropriate aspects of NASA's Earth Observing System. The converged program will be conducted in accordance with the following principles:

- Operational environmental data from polar-orbiting satellites are important to the achievement of U.S. economic, national security, scientific, and foreign policy goals.
- Assured access to operational environmental data will be provided to meet civil and national security requirements and international obligations.
- The United States will ensure its ability to selectively deny critical environmental data to an adversary during crisis or war yet ensure the use of such data by U.S. and Allied Military forces. Such data will be made available to other users when it no longer has military utility.
- The implementing actions will be accommodated within the overall resource and policy guidance of the President.

The following implementing actions for Interagency Coordination were outlined in the PDD. The DOC, DOD, and NASA will create an Integrated Program Office (IPO) for the national polar-orbiting operational environmental satellite system no later than 1 October 1994. The IPO will be responsible for the management, planning, development, fabrication, and operations of the converged system. The IPO will be under the direction of a system program director (SPD) who will report to a triagency executive committee via the DOC's Under Secretary for Oceans and Atmosphere. The DOC, DOD, and NASA will form a convergence EXCOM at the under secretary level. The members of the EXCOM will ensure that both civil and national security requirements are satisfied in the converged program; coordinate program plans, budgets, and policies; and ensure that agency funding commitments are equitable and sustained. The three member agencies of

the EXCOM will develop a process for identifying, validating, and documenting observational and system requirements for the national polar-orbiting operational environmental satellite system. Approved operational requirements will define the converged system baseline that the IPO will use to develop agency budgets for research and development, system acquisitions, and operations.

Agency responsibilities and budget were defined in the PDD along with a requirement for international cooperation. Plans for and implementation of a national polar-orbiting operational environmental satellite system will be based on U.S. civil and national security requirements. Consistent with those actions, the United States will seek to implement the converged system in a manner that encourages cooperation with foreign governments and international organizations. The cooperation will be conducted in support of these requirements in coordination with the Department of State and other interested agencies. Budgetary planning estimates, developed by the IPO and approved by the EXCOM, will serve as the basis for agency annual budget requests to the President.

This current perspective of transformation was organized as shown in Figure 1.

The EXCOM has the following roles and responsibilities:

- Policy guidance
- Agency sustained support
- Program execution oversight
- Requirements review and approval

The IPO has the following roles and responsibilities

- Day-to-day program management
- Requirements baseline control
- Program financial management
- Contractor Insight

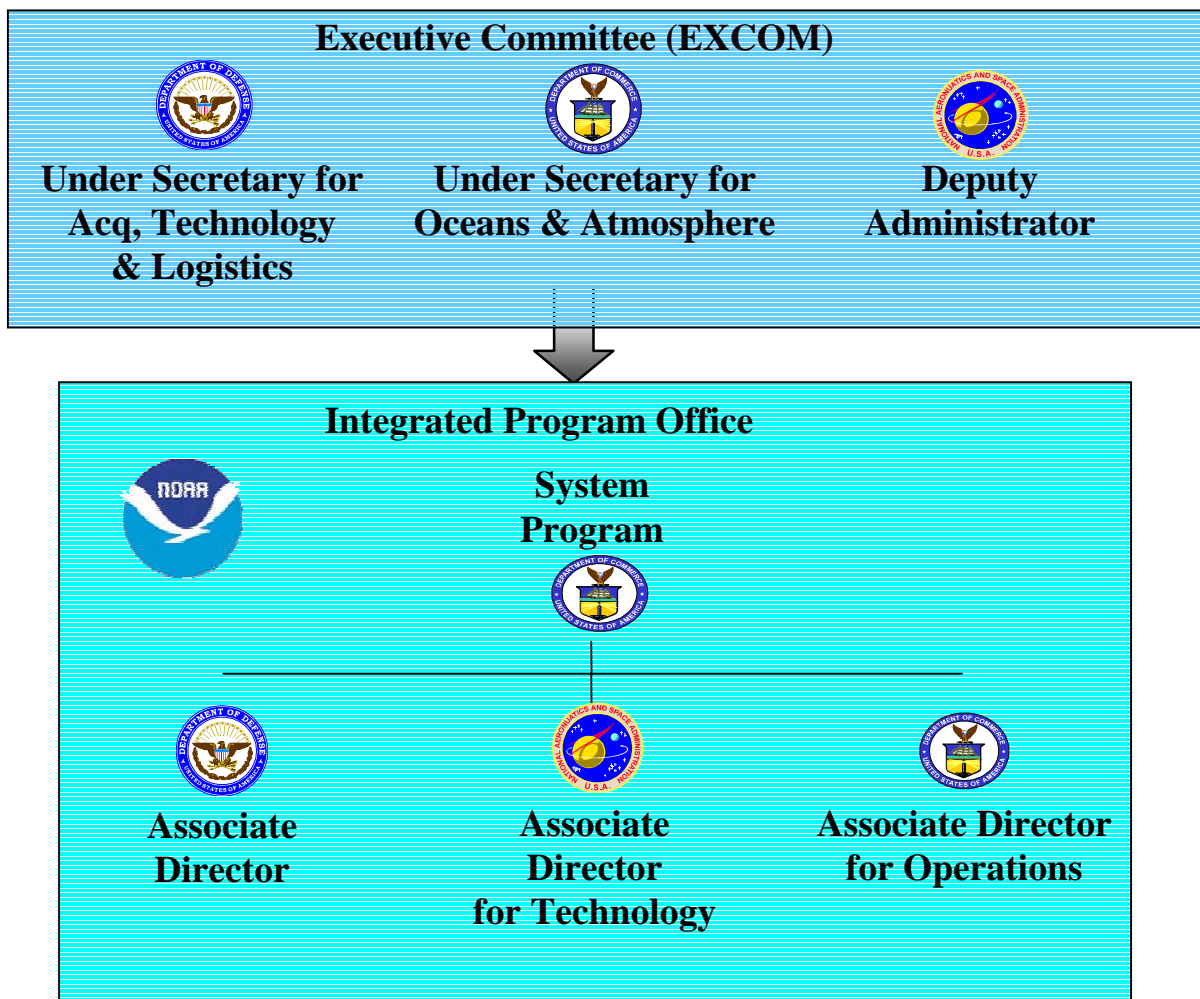


FIGURE 1

The overall goal of this transformation was to save the government over \$1.6 billion by combining the two programs, stripping out duplicative efforts, and transforming programs that originated in stovepipe agencies, making this program a springboard for success for other interagency efforts that are good for the warfighter, the taxpayer, and the nation as a whole.

One primary reason the DMSP satellite program was transferred to NOAA was to save resources. Although early historical data was sketchy, information was available dating to 1997 to complete a picture of how well DMSP operations have been maintained

under NOAA. In 1997, the last DMSP-unique command and ground station was closed at Fairchild AFB, Washington, as part of the transfer of operations to NOAA. The previous placement of DMSP-unique equipment at three Air Force Satellite Control Network (AFSCN) sites at Greenland, New Hampshire, and Hawaii, readied the mission for transfer to NOAA. With the mission transfer, personnel numbers were reduced. Figure 2 shows personnel reductions from 1997 to 2000. As the chart indicates, manpower funded by DMSP to operate DMSP was reduced from a high of 296 in early 1997 to 125 in 2000. The reduction was a direct result of the mission transfer and assumption of DMSP operations by NOAA. Although some of the initial savings can be attributed to the closure at Fairchild AFB, many of the functions at the original 6 Satellite Operations Squadron (6 SOPS) were absorbed or reduced at NOAA without sacrificing data timeliness or quality to the warfighter, civilian users, and other government agencies. With the DMSP transfer a double bonus was gained. Eighteen personnel with a total of more than 50 years of DMSP experience made the move from Omaha to Suitland, not only retaining the initial investment made by the government in DMSP, but reducing the need for a formal Air Force training course for new operators. Typically, the Air Force sends new enlisted and officer operators through a basic introductory course in satellite operations at Vandenberg AFB. The experienced initial DMSP cadre of military and newly retired or separated personnel that made the move to SOCC reduced the need to have a formal training school. New crewmembers are now trained in-house at a savings to the taxpayer of \$240,000 per student.

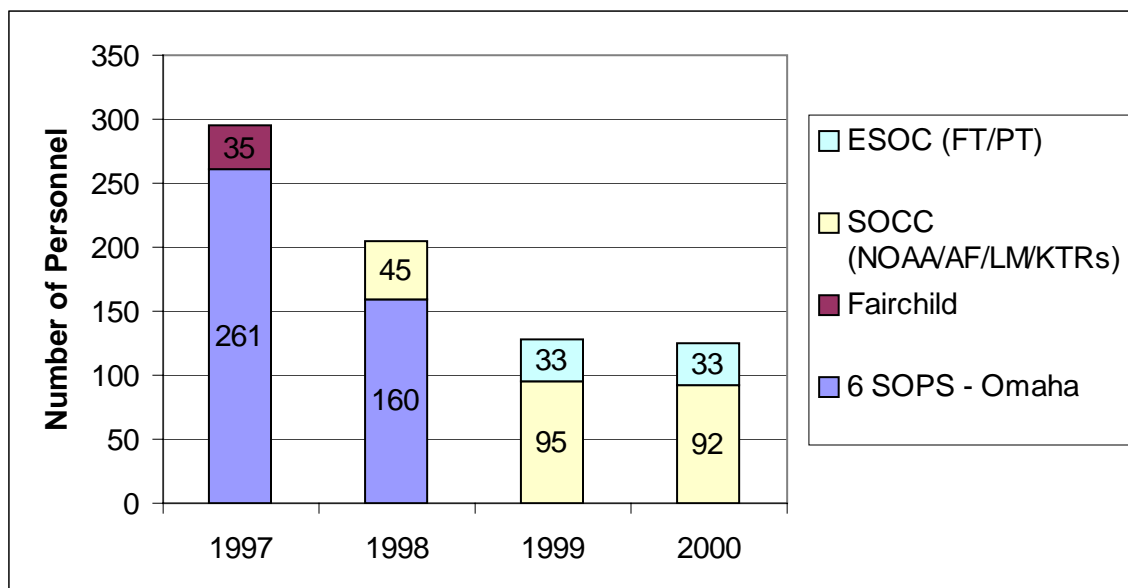


FIGURE 2-DMSP CIVILIAN, MILITARY, AND CONTRACTOR PERSONNEL CHART

Figure 3 shows a general trend of increasing data acquisition and decreasing personnel requirements. The bottom line is more savings for the taxpayer, quantified into \$12 million/year in operations and maintenance costs. The Satellite Control Authority

(SCA) arrow marks when operational control was transferred from DOD to DOC in May 1998.

Data vs Personnel

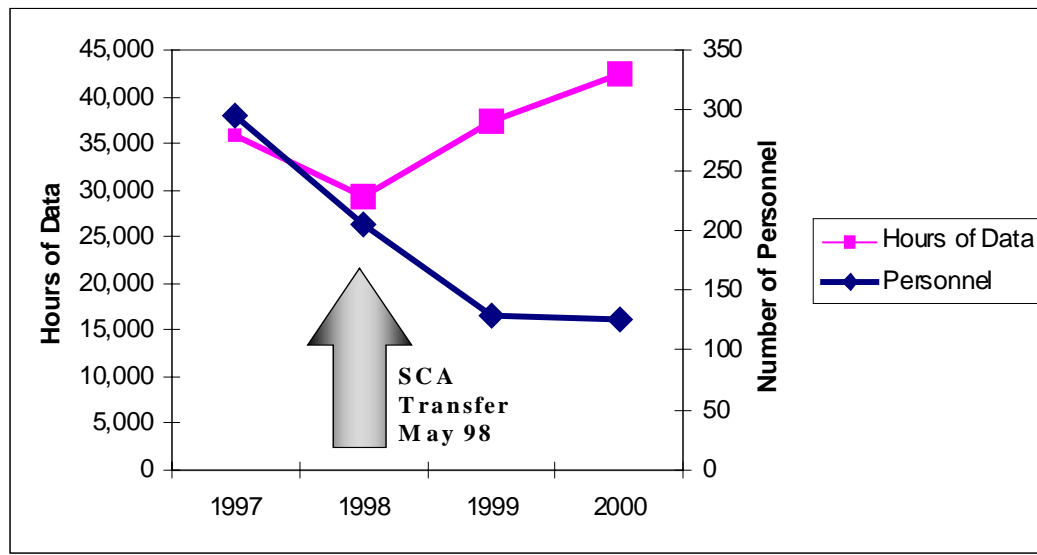


FIGURE 3-DMSP DATA VERSUS PERSONNEL CHART

Anther Perspective: Special Operations and the CIA

Proposal for the Future

As presented in the two current perspectives outlook, many good examples of transformation exist within the government that allow warfighters to expand capability while reducing complexity and cost for the nation as a whole. For the future, another possible case for transformation would offer the warfighter a “single entity” to furnish combat support while reducing cost to the nation and letting some of the cost savings be used where the warfighter needs them. This philosophy is emphasized in the latest QDR

and is backed by numerous speeches and studies. As David L. Nordquist points out in his review of the Defense Budget, “Once there are advocates for potential innovation, the struggle shifts to find support within the bureaucracy” (11).

This case study mirrors the previous space example by combining satellite command and control between various agencies of DOD, NASA, and DOC.

ENDNOTES

- 1 “A Word from the Chairman—Understanding Transformation,” General Richard B. Myers, Chairman of the Joint Chiefs of Staff, *Air and Space Power Journal*, Spring 2003, p. 7.
- 2 Ibid, p. 6.
- 3 Department of Defense. *Quadrennial Defense Review Report*. 30 September 2001, p. 53.
- 4 “A Brief History of the National Performance Review,” John Kamensky, 5 January 1996, p. 1.
- 5 Department of Commerce, “Accompanying Report of the National Performance Review,” September 1993.
- 6 Rand Corporation, Appendix A. NPOESS Case Study, 2000, p. 73.
- 7 Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), *International Implications of Converging the DOC and DOD Polar Orbiting Meteorological Satellite Systems*, 1987.
- 8 Letter from George E. Brown, Jr., Chairman of the House Committee on Science, Space and Technology, to Dr. D. James Baker, NOAA Administrator, 22 February 1993.
- 9 Letters from Senator James Exon to Secretary of Commerce Ron Brown and Deputy Secretary of Defense William Perry, 2 June 1993.
- 10 White House Presidential Decision Directive/NSTC-2, “Convergence of U.S.-Polar-Orbiting Operation Environmental Satellite Systems,” Washington, DC, 5 May 1994.
- 11 “The Defense Budget, Is It Transformational?,” David L. Norquist, *Joint Force Quarterly*, Summer 2002, p. 95.

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